

REMARKS

Claims 1, 2 and 4 – 17 are pending in the application. By this Amendment, claims 1, 2 and 12 have been amended, and claim 3 has been canceled. Support for the claim amendments is apparent and may be found in the specification. No new matter has been introduced into the application by these amendments.

In the Action, claims 1 and 5-11 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,486,786 (French) in view of U.S. Patent No. 3,882,982 (Smith). The Action admits that French lacks a detection system to determine if a shopping cart is returned and stacked in a row within a prescribed tolerance. Smith is ostensibly relied upon as showing this feature. In view of the present amendment, Applicants respectfully traverse this rejection.

French teaches a cart return system that is linked to a frequent shopper-type reward program. French discloses a cart corral that is equipped with conductive loop sensors that detect the relative position of shopping carts entering and exiting the corral. A customer card reader is located on one of the corral posts. The card reader is in communication with the store computer and will issue a credit to the customer account when carts are returned and the customer's frequent shopper card is read.

Smith teaches an apparatus for encouraging the return of shopping carts to a store. The apparatus detects movement of shopping carts through a location at the front of a passageway. See Column 5, lines 58-68: "for maximum convenience, the returner of the cart will usually have to push the cart forward some distance beyond the point at which the indicia 13 is detected by the detector 14 ...". Thus, proximity to a next cart is never established at all, merely pushing the cart a certain distance past a detector is disclosed.

The present invention claims a system that detects and rewards the return of shopping carts in a stacked row at collection points of a shopping center. The system of the present invention only issues a reward or bonus when a shopping cart

has been returned to a stacked row within a prescribed tolerance by determining if a handlebar of the shopping cart is within the prescribed tolerance to a handlebar of a next adjacent shopping cart .

Neither of the systems disclosed by French or Smith require that the carts be returned to a stacked row with the handlebars being within a prescribed tolerance of each other. In fact, in both cases a user is simply required to push a cart past a sensor at the entry of a cart corral in order for the cart to be detected and a reward to be issued. While Smith states that a user would have to push the cart past the sensor to claim the reward, it is clear that the entry of the corral would be quickly blocked since there is no motivation for a user of the system taught by French or Smith to push the cart forward in a stacked row since the reward is issued once the cart enters the corral. The system of the present invention, however, does not issue a reward or bonus until the cart is returned to a stacked row with the handlebars being within the prescribed tolerance to the handlebar position of a next adjacent cart.

Accordingly, claim 1 should be patentable over this combination.

Claims 6-8, which depend directly or indirectly from claim 1, are specifically directed to a preferred system of the invention in which light is channeled through a deflection unit on the next adjacent cart in the stacked row, and the light beam (13 in Fig. 2) is only detected if the receiver (12) on the cart that the user is returning detects the light from the next adjacent cart. This can only be accomplished if the carts are placed with the handlebars within the prescribed tolerance, providing incentive for the customer to push the cart fully into the proper position in a stacked row. Both Smith and French are wholly silent on this feature. The passage of Smith cited in the Action (col. 2, line 67 to col. 3, line 34) relates only to a reflector (13) on the cart reflecting light back to the detector (14) on the fixed station. There is no suggestion or disclosure of light being reflected from the next

adjacent cart to ensure that the cart being returned is stacked in a row within a prescribed tolerance to the previous cart.

Accordingly, these claims should be patentable over the cited combination.

Claims 5 and 9-11 depend directly or indirectly from claim 1, and should be patentable for the reasons noted above in connection with claim 1.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the Section 103 rejections of claims 1 and 5-11.

Claims 2-4 were also rejected under 35 U.S.C. §103 as unpatentable over the prior combination in view of U.S. Patent 5,402,106 to Dipaolo et al. The Action admits that French and Smith fail to disclose the digital image camera as recited in claims 2 and 4 which recognizes the handle bar positions of shopping carts to determine if they are stacked within the prescribed position of the next adjacent shopping cart. Dipaolo is cited as showing a camera. The Action concludes that the combination of these references would make the present invention obvious. Applicants respectfully traverse this rejection.

Dipaolo is directed to a security system to ensure shopping carts are not stolen from a parking lot of a store. In connection with this system, Dipaolo discloses a camera used to take a picture of a person if they remove a shopping cart from the parking lot. The camera is responsive to a sensor which detects when the shopping cart is removed from a predetermined area. Nothing in Dipaolo suggests or discloses or is remotely connected to positioning a shopping cart in a row. Additionally, the camera of Dipaolo utilizes film having a given number of exposures in order to capture a picture of a person removing a cart from the parking lot area. There is no suggestion or disclosure of a digital image processing camera which is programmed to recognize the handle bar positions of shopping carts as well as a distance and/or a parallel positioning of a handle bar to a next adjacent shopping cart. The use of a camera in Dipaolo is wholly non-analogous to the present invention and does nothing to augment the disclosures of Smith and French

in this respect. Accordingly, withdrawal of the Section 103 rejection of claims 2 and 4 is respectfully requested.

Claims 12 and 14-17 were also rejected under 35 U.S.C. §103 as unpatentable over the combination of French et al. and Smith.

Claim 12 is directed to a method of detecting and rewarding the return of shopping carts and includes generating a signal upon the return of a shopping cart to a collection point to issue a bonus wherein the bonus is issued only if the returned shopping cart is returned in a shopping cart stacked row in the collection point within a prescribed tolerance by determining if the handle bar of the shopping cart is within the prescribed tolerance of a handle bar of the next adjacent shopping cart.

As noted above, such disclosure is clearly absent from both French et al. and Smith. French et al. and Smith both provide a reward when a shopping cart is returned to a shopping cart corral. However, there is no suggestion or disclosure of the carts being returned such that the handle bars are within the prescribed tolerance of a handle bar of the next adjacent shopping cart. As noted above, both references provide a reward as soon as the shopping cart is pushed into a corral, or specifically in the case of Smith when the shopping cart is pushed slightly past the fixed detector station at the entrance of the corral. It is clear that in both cases this would result in the carts only being pushed into the entrance far enough to collect a reward and would not encourage a user to place the carts in a stacked row within a prescribed tolerance of one another. Accordingly, claim 12 should be patentable over this combination.

Claims 14-17 depend directly or indirectly from claim 12 and should be patentable for the same reasons as noted above in connection with claim 12.

Accordingly, withdrawal of the Section 103 rejection of claims 12 and 14-17 is respectfully requested.

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Claim 13 was also rejected as unpatentable over the combination of French and Smith, and further review of Dipaolo et al. Applicants respectfully traverse this rejection.

As noted above, Dipaolo is wholly unrelated to the use of a digital image camera in connection with determining if a handle bar of a shopping cart is within the prescribed tolerance of a handle bar of the next adjacent shopping cart. The theft detection camera of Dipaolo et al. is specifically directed to capturing an image of a person removing a shopping cart from an authorized area in a parking lot, and has nothing to do with ensuring that shopping carts are stacked in a row upon returning the cart to a shopping cart corral. Accordingly, claim 13 should be patentable over this combination and withdrawal of the Section 103 rejection of claim 13 is respectfully requested.

If the Examiner believes that any additional formal matter still needs to be addressed to place this application in condition for allowance, the Examiner is invited to call the Applicants' attorney at the Examiner's convenience.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application, including claims 1, 2 and 4 - 17, is in condition for allowance, and a Notice to that effect is respectfully solicited.

Respectfully submitted,

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